ABSTRACT

An inkjet printhead with nozzles 4 and liquid passages 31, 32 leading to each nozzle. The nozzles, ejection actuators 14, associated drive circuitry 22 and liquid passage 31, 32 being formed on and through a wafer 21 using lithographically masked etching technique, such that the wafer has a droplet ejection side and a liquid supply side. Each of the liquid passages is formed by etching a hole 31 partially through the wafer 21 from the droplet ejection side, and etching a passage from the liquid supply side of the wafer 21 to the hole 31. Etching a hole 31 into the wafer 21 from the droplet ejection side means the ink supply passage 32 can stop short of the interface between the dielectric 23 and the wafer 21. The plasma does not get the opportunity to track along the interface and damage the drive semiconductors. By making the liquid supply passage 32 wider than the hole 31 to account for the inherent tolerances of the etching process, a suitable fluid connection is assured. As the hole etched from the ejection side is relatively shallow, the removal of the resist is not overly difficult. This permits a more compact overall design and higher nozzle packing density.

Fig. 5